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- (71) Applicant (for all designated States except US): INTEL CORPORATION [US/US]; 2200 Mission College Boulevard, Santa Clara, CA 95052 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): LEE, Chan, W. [KR/US]; 1269 Lakeside Drive #1108, Sunnyvale, CA 94085 (US). HINTON, Glenn [US/US]; 6130 NW 185th Avenue, Portland, OR 97229 (US). KRICK, Robert [US/US]; 3003 Waterstone Court, Fort Collins, CO 80525 (US).

- (74) Agents: MALLIE, Michael, J. et al.; Blakely, Sokoloff, Taylor, & Zafman LLP, 12400 Wilshire Boulevard, 7th floor, Los Angeles, CA 90025 (US).
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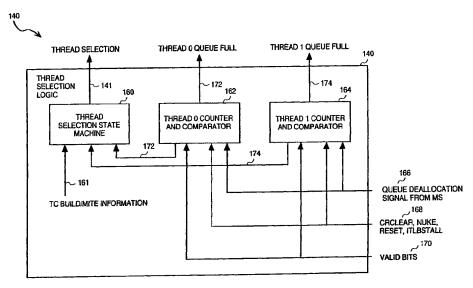
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(54) Title: METHOD AND APPARATUS FOR PARTITIONING A RESOURCE BETWEEN MULTIPLE THREADS WITHIN A MULTI-THREADED PROCESSOR



(57) Abstract: A method of partitioning a memory resource, associated with a multi-threaded processor, includes defining the memory resource to include first and second portions that are dedicated to the first and second threads respectively. A third portion of the memory resource is then designated as being shared between the first and second threads. Upon receipt of an information item, (e.g., a microinstruction associated with the first thread and to be stored in the memory resource), a history of Least Recently Used (LRU) portions is examined to identify a location in either the first or the third portion, but not the second portion, as being a least recently used portion. The second portion is excluded from this examination on account of being dedicated to the second thread.



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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

#### INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F9/38 G06F G06F9/50 G06F12/08 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 G06F Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) WPI Data, PAJ, IBM-TDB, EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ EP 0 856 797 A (SGS THOMSON 1-5.MICROELECTRONICS) 12 - 15, 21-23, 5 August 1998 (1998-08-05) 29,30 6-10.Α 16-20,24 - 28page 2, line 20 -page 7, line 43 GB 2 311 880 A (ADVANCED RISC MACH LTD) 1-5.Α 8 October 1997 (1997-10-08) 12 - 15, 21-23, 29,30 page 2, line 26 -page 4, line 31 page 9, line 9 - line 18; figure 9 -/--Further documents are listed in the continuation of box C Patent family members are fisted in annex Special categories of cited documents "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the lart which is not considered to be of particular relevance. cited to understand the principle or theory underlying the invention "E" earlier document but published on or after the international \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or involve an inventive step when the document is taken alone which is cited to establish the publication date of another \*Y\* document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the \*O\* document referring to an oral disclosure, use, exhibition or document is combined with one or more other, such document ments, such combination being obvious to a person skilled other means \*P\* document published prior to the international filing date but \*8\* document member of the same patent family later than the priority date claimed Date of mailing of the international search report Date of the actual completion of the international search 2 October 2001 09/10/2001 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nt.

Fax: (+31-70) 340-3016

Michel, T

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